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# PUBLIC

# HEALTH NEWSLETTER

*Published by The Johns Hopkins University School of Hygiene and Public Health*

## DEAN'S LECTURE EXAMINES THE SCIENCE OF MENTAL HEALTH PREVENTION

How does the public mental health structure of prevention science compare with the prevention framework for infectious disease, cancer, nutrition, or cardiovascular disease?

This was the question addressed by **Sheppard Kellam**, MD, professor, Mental Hygiene, and director, Prevention Research Center, during last month's Dean's Lecture, "The Science of Prevention in Public Mental Health."

"The underlying, unifying factor in public health research is that we're all in the prevention business," said Dr. Kellam.

As an example of sharing interdisciplinary strengths, Dr. Kellam cited the Prevention Research Center, which has worked with a number of local elementary schools over the past decade. The Center's philosophy and field work merge epidemiology with developmental and experimental intervention sciences. The Center's staff represents an equally broad set of disciplines.

Preventive science, according to Dr. Kellam, is based on three principles. The first, lifecourse development, identifies early troubling conditions as targets for

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## GRAND ROUNDS LOOKS AT HEALTH ADVOCACY

The role of public health professionals in influencing policy and the media was addressed in this month's Preventive Medicine Grand Rounds entitled "Health Advocacy: The Power to Shape Health Policy."

**Stephen G. Moore**, MD, MPH, preventive medicine chief resident, and a passionate believer in health advocacy, assembled a trio well-versed in the power of advocacy. **Peter Beilenson**, MD, MPH, commissioner for the Baltimore City Health Department, spoke first about his experience lobbying at the state level for the Baltimore needle exchange program. "When we started to advocate this idea," he said, "we only had the support of the Mayor and our own department, along with Dr. **David Vlahov** from the School." He had to sell legislators from every part of Maryland on the idea; it was a hard sell.

To win over conservative lawmakers from the Eastern Shore, Dr. Beilenson touted the cost effectiveness of the program. "Once they understood how much money could be saved by AIDS prevention, they looked at the issue differently," he said. From virtual anonymity, the program moved to full

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## RESEARCH

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"The underlying, unifying factor in public health is that we're all in the prevention business."

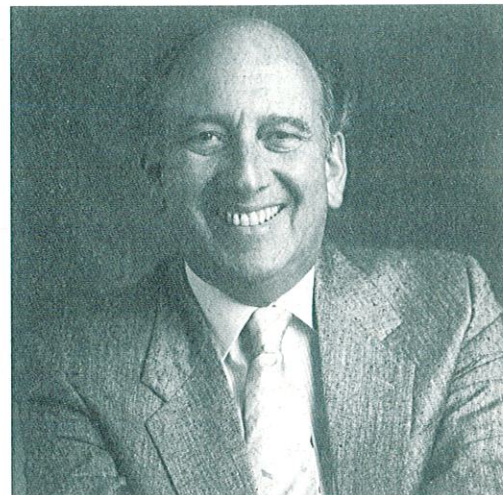
-Dr. Sheppard Kellam

preventive interventions. The second, community epidemiology, allows researchers to study variations in childhood developmental and environmental conditions. These steps ultimately lead to intervention trials.

The Baltimore City School's Prevention Program, begun in 1985, includes 19 elementary schools and 2,000 children. Two intervention programs - The Good Behavior Game and Mastery Learning - were developed to address early behavioral predictors of violence and drugs, depression, anxiety, and poor school performance. The Good Behavior Game rewards teams of students for pro-social behavior, while Mastery Learning allows group learning within each class.

The successful results of both programs, said Dr. Kellam, logically lead to the next stage of intervention programs aimed at specific distinctions among the children. "These programs constitute the early stage of prevention science in the public mental health arena," said Dr. Kellam.

"In the 12 years Dr. Kellam has been at the School, he has built a magnificent department of Mental Hygiene, while at the same time moving forward the science of mental health prevention through his leadership of the Prevention Research Center," said Alfred Sommer, MD, MHS, dean of the School. "Continuing and broadening this endeavor will reach across departments and disciplines throughout the School, as the science of prevention drives this institution."



Sheppard Kellam, MD

## INSUFFICIENT RADON DATA SOURCE OF CONFUSION, CONCERN

Recent studies which seem to question the risk of lung cancer posed by exposure to indoor radon may cause public confusion and policy decisions based on insufficient data, according to an editorial in the December issue of the *Journal of the National Cancer Institute*. The editorial, written by Jonathan Samet, MD, chairman, Epidemiology, said that although a recent study did not find a "statistically significant association between estimated exposure to indoor radon and lung cancer . . . a case-control study conducted in Sweden and reported in January, 1994 found a statistically significant positive association between indoor radon and lung cancer."

"The apparently conflicting findings of...epidemiologic studies are likely to perplex the public and cause policy makers to question if the scientific evidence on indoor radon and lung cancer is sufficiently certain to warrant a national control program," said Dr. Samet.

"There is strong epidemiologic evidence from studies of underground miners, and from animal studies and other laboratory-based research, that there is a link between radon and lung cancer. Individual studies should be viewed as only small pieces in a much larger puzzle," he added.

## NON-PRESCRIPTION PAIN KILLERS RELATED TO KIDNEY FAILURE

Non-prescription pain killers, especially acetaminophens such as Tylenol® and Datril®, may be related to a person's risk of having end stage renal disease (kidney failure), according to a study published in the *New England Journal of Medicine*. The study, conducted by the Welch Center for Prevention, Epidemiology & Clinical Research, was the first in which the people interviewed as both cases and controls were chosen randomly from the general population.

Paul Whelton, MD, MSC, professor, Epidemiology, director of the Welch Center, and one of the study investigators said, "End stage renal disease is more prevalent now than it used to be. We do not know all the reasons, but this study raises the question of whether the choice of analgesic increases the risk of end-stage renal disease (ESRD)."

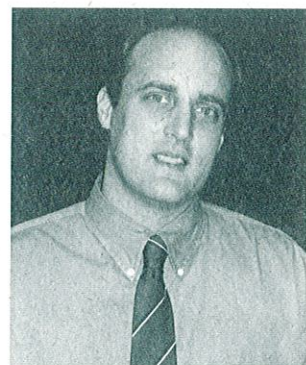
The study subjects were between the ages of 20 and 64 and came from Maryland, Virginia, West Virginia, and Washington, D.C. They were asked both about how many analgesics they took on the average every day, and also about their cumulative lifetime consumption of analgesics.

Consumption of zero to 104 pills per year was categorized as the base line, or light use. In relation to that number, the study shows that the odds ratio (risk) of ESRD was 1.4 higher for those who took from 105 up to 365 pills per year, and increased to 2.1 for those who took more than 366 pills per year, or more than one a day. No significant associations with ESRD were observed for average use of either aspirin or non-steroidal anti-inflammatory drugs (NSAIDs) such as Motrin® and Advil®, but there was an increase in the risk of ESRD with cumulative lifetime intake of either acetaminophens or NSAIDs. Definite causality awaits the demonstrated excess use of these agents prior to the onset of ESRD. Dr. Whelton said, "We may need to re-evaluate the safety of acetaminophens and NSAIDs."

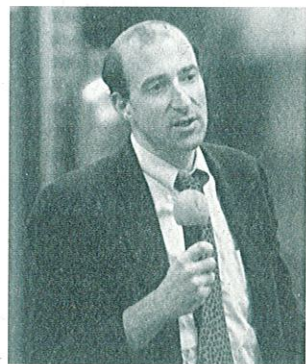
The relationship between kidney disease and analgesics was first noted in the 1950s. Phenacetin was subsequently isolated as the culprit and removed from the market.



Paul Whelton, MD, MSC



Stephen G. Moore, MD, MPH



Peter Beilenson, MD, MPH

### Grand Rounds, continued from page 1

approval through the use of health advocacy. "I learned how important it was to get involved in politics and get our voices heard," said Dr. Beilenson.

Speaker **Sidney Wolfe, MD**, director of Public Citizen's Health Research Group, gave a broad overview of the type of work that his advocacy group does. The bulk of their work involves medical devices and drugs. "I have always believed," he said, "that the doctor patient relationship should be one of advocacy, but that relationship has been changed by HMOs employing doctors, by the influence of drug companies on doctors, and by doctors owning shares of hospitals." As an illustration of the type of pressure put on doctors, Dr. Wolfe told the story of a pharma-

ceutical company that formed a partnership with American Airlines and offered frequent flyer miles for doctors who prescribed certain drugs. "The drug company knew how to be an effective advocate for their interests. We have to do the same," he said.

In answer to the question, "Can you be an advocate in a school of public health?" speaker **Stephen Teret, JD, MPH**, answered, "It depends." Professor Teret, a nationally known advocate for regulating handguns, said the "depends" part related to who your boss was and what attitude your institution assumed. "We are lucky here," he said, "to have a Dean who understands and backs advocacy one hundred percent."

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## AT THE SCHOOL

**Grand Rounds**, continued from page 3

Professor Teret also mentioned his advocacy work for labelling toys with small parts, and for motor vehicle safety. He talked about how advocacy can be done with simple surveys to show simple truths. In one instance, Professor Teret said that he and his colleagues at one point conducted a simple random survey to determine if a warning label on toys with small parts really worked. The toy in question was a baby bottle with a cap and nipple that clearly could be swallowed by a child. The label said only "ages 3 and up." Professor Teret determined that 44% of those surveyed did not understand that there

was any danger to a child under three from that label. As a result of his work, on June 16 of this year, the Child Protection Safety Act took effect, requiring manufacturers' labels to state explicitly that small parts can hurt a young child.

"My point," said Teret, "is that advocacy can be done simply and effectively. Many public health researchers think that true scientists ought not to dirty themselves by thinking about the policy implications of their work. If public health wants to be a winner, it has to speak out for the implications of its findings."

## U.S. IMMIGRANT PICTURE A MISUNDERSTOOD ONE

"Contrary to public perception, the overwhelming number of immigrants to the United States are legal," said **Jeffrey S. Passel**, director, Program for Research on Immigration Policy, The Urban Institute, in a recent talk at the School. According to the 1990 census, 87 percent of immigrants in the United States were here legally, although the percentage varies from state to state. California's percentage of illegal immigrants, primarily Mexicans and Asians, is significantly higher. "California drives a skewed immigration picture for the rest of the country," said Mr. Passel.

The nation's immigrants are concentrated geographically, with 93 percent living in urban areas in 1990. This leads to immigration "being primarily a six or seven state concern," said Mr. Passel. California, New York, Texas, Florida, New Jersey, and Illinois are home to 76 percent

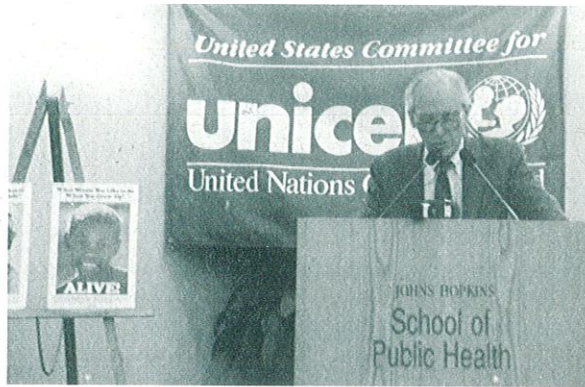
of the 8.7 million immigrants who entered the United States in the 1980s.

Estimates on the annual number of illegal immigrants arriving in the U.S. over the last several years range from 200,000 to 300,000. An often overlooked fact is that one-half of illegal immigrants enter the country legally, via visas, green cards, or as tourists, then overstay their allotted time. Commenting on current enforcement perceptions, Mr. Passel observed, "Border patrols can't stop these people."

## ANNUAL UNICEF REPORT BRINGS ENCOURAGING NEWS

By 1995, 2.5 million fewer children worldwide will be dying annually from malnutrition and preventable diseases than died in 1990. Another 750,000 fewer will become disabled, blind, crippled, or mentally retarded.

These encouraging projections are contained in UNICEF's annual "State of the World's Children" report, released recently in a press conference at the School. The report indicated that despite the constant threat of civil war, poverty, and drought, the children of developing nations have generally become healthier, through increased immunization, improved primary care, and simple, inexpensive techniques such as adding iodine to salt, vitamin A therapy, and oral rehydration. Governments and human service organizations were also doing a better job of getting drugs and equipment to people in remote areas, the report stated.



**Carl Taylor, MD, DrPH, discusses the "State of the World's Children" report at the annual UNICEF meeting held at the School last month**

"Developing nations have dramatically reduced the numbers of brain-damaged and retarded children by doing what this country has done for decades, simply adding iodine to salt," said Carl Taylor, MD, DrPH, professor emeritus, International Health. As UNICEF's representative in China during the 1980s, Dr. Taylor was instrumental in getting that country's provincial leaders to add salt to its processing plants. Iodine deficiency is the largest single cause of preventable mental retardation, causing brain damage in an estimated 26 million children worldwide annually.

## CONFERENCE REVIEWS NINE YEARS OF PVO PROGRESS

For nearly a decade, a Hopkins' program, in concert with federal funding, has quietly built a legacy of training for community health and public health workers around the world.

This effort, the Private and Voluntary Organization (PVO) Child Survival Support Program (CSSP), was examined last month in a worldwide conference entitled, "Community Impact of PVO Child Survival Efforts: 1985-1994" held in Bangalore, India.

Dory Storms, ScD, MPH, research associate, International Health, and director of the Hopkins CSSP said, "With United States Agency for International Development (USAID) funding we have been able reach the people who need it most by providing training to community health and public health workers."

Results documented the overwhelmingly positive impact of training 93,000 health workers in some of the world's poorest communities. Hopkins has worked with USAID to develop and analyze rapid survey questionnaires to document changes in the lives of mothers and children in PVO projects. Results clearly demonstrate that a child's chance of survival in PVO project areas is dramatically improved.

PVO agencies receiving Hopkins support include CARE, Catholic Relief Services, Project HOPE and World Vision. The (USAID), in funding 199 PVO projects worldwide since 1985, has forged an extremely successful partnership with PVO initiatives.

The PVO commitment is to work with, not replace, national, regional and local efforts.

**"With USAID funding we have been able to reach the people who need it most by providing training to community health and public health workers."**

**-Dr. Dory Storms**

### TEACHING AGREEMENT SIGNED BETWEEN SCHOOL AND ARMENIAN UNIVERSITY

A Memorandum of Understanding has been signed between the School's Department of Epidemiology and the American University of Armenia (AUA) Corporation, forming an affiliation toward development of the program of Public Health at AUA. **Haroutune Armenian, MD, DrPH**, professor, Epidemiology, will act as coordinator for the new program. Dr. Armenian has been involved in a number of evaluation, research, and educational projects in Armenia with the Ministry of Health, Armenian Relief Society, and the United States Agency for International Development.

The five-year agreement, signed by **Alfred Sommer, MD, MHS**, dean of the School,

and **Dr. Mihran Agbabian**, president of AUA, will see the School assist AUA in the formulation, development, and implementation of academic curricula. Emphasis will be placed on personal skills in basic public health sciences and health care management. Several faculty from the School will travel to Armenia next March to assist in the initial instruction.

"This will be the first program in health sciences at AUA," said Dr. Armenian. "The School's role is to provide oversight and academic planning, to help get the program up and running. Eventually, we hope the program will be offered as a master's degree."

### SCHOOL EXPANDS RWANDAN RELIEF EFFORTS

In an unprecedented show of support from an academic institution, **Alfred Sommer, MD, MHS**, dean of the School, has offered the School's assistance and expertise to the more than 35 relief agencies working in Rwanda and neighboring countries.

In the spring, the School will invite these agencies to meet the students and alumni of the School's Refugee Health Program, and with faculty researchers working in related fields.

"One of the major challenges faced by most of these agencies is bridging the gap between short-term relief and long-term development, which is where researchers and students from the School can help,"



**Africare needs assessment team:**  
**Harold Tarver, Elton King, Gilbert Burnham, MD**

said **Gilbert Burnham, MD**, assistant professor, International Health. Dr. Burnham, who teaches in the Refugee Health Program, went to Rwanda several times for Africare, a Washington-based relief agency.

Last July, Dr. Burnham witnessed the horrors of a war-torn country: bombed buildings, burnt-out vehicles, and entire villages left as ghost towns. Public health threats, included cholera, dysentery, starvation, and risk of measles epidemics sweeping through unsanitary, overcrowded camps.

During the war, the Rwandan health infrastructure was destroyed. Dr. Burnham estimated that as many as 80 percent of health workers were killed or fled the country. The health workers Dr. Burnham found in Rwanda are made up largely of returning refugees who have not lived in the country for as many as 15 years.



**Kigali public market, one of the first parts of Kigali to return to life. The vehicle is carrying soldiers of the Rwandan Patriotic Front, which has just established the government.**

## EXHIBIT EXAMINES HISTORY OF GARBAGE

The scene was one of almost unimaginable filth. Manure, rubbish, slops, dead animals, and other wastes accumulated in huge, fetid piles in the streets. Indiscriminate ocean dumping was fast filling in shipping channels. Yellow fever, cholera, smallpox, typhus, dysentery, and scarlet fever were a constant threat. Infant diarrhea, diphtheria, and tuberculosis were endemic.

Welcome to New York City in the nineteenth century. If a city's history is, at least in part, written in its trash, New York's was a public health nightmare.

The legacy of garbage in New York over the last 150 years forms the basis for *Garbage! The History of Politics and Trash in New York City*, an exhibition at the New York Public Library from November 12, 1994 to February 25, 1995. Guest curator for the exhibit is **Elizabeth Fee, PhD**, professor, Health Policy and Management. Books, maps, manuscripts, cartoons, paintings, posters, handbills, and numerous photographs, along with such tools of the trade as trash cans and antique smell funnels, form the framework of this engrossing story. The exhibition even features relevant sounds and smells, such as the cry of seagulls following an ocean-going barge, and the warm aroma of bread baking in a tenement.

"A city's garbage involves many aspects of its social history, including public health, environmentalism, social reform, and urban pride," said Dr. Fee. "New York City, representing arguably the epitome of American urban life, provides us with perhaps the quintessential view of these forces at work."

*Garbage!* is divided into five basic segments. "Dirt and Disease: Conditions of Urban Life 1840-1920," examines the squalor of a younger New York. Trash and other waste was dumped directly onto the streets. Street cleaning consisted of scavengers picking through mountains of garbage. Bands of dogs, hogs, even cattle, roamed about freely. In 1880 alone, 15,000 dead horses were removed from the city's streets. A social dividing line appeared between the relatively clean "respectable class," and the dirty bodies of tenement dwellers. Epidemics were believed to be transmitted by "miasmatic clouds," poisonous vapors formed from rotting garbage, animal and human waste, and other detritus. Some felt the "pestilential vapors" from slaughterhouses, tanneries, fertilizer plants, and similar trades caused disease and

death; others blamed the poor's presumed immoral behavior, intemperance, or bad habits.

"Public Health and Sanitary Reform 1840-1920" deals with the fledgling public health response. Starting with streets, alleys, and tenement housing, reformers went on to tackle private spaces, baths and toilets, even personal hygiene. Public health reformers mapped squalid living conditions throughout the city, then correlated them with outbreaks of infectious diseases and premature infant deaths. They prodded city government to develop clean water supplies and a more adequate municipal sewerage system. These noble efforts came none too soon: An 1897 report found that of 255,000 tenement house inhabitants, only 306 had access to a bathroom in the dwelling where they lived.

"Who Should Clean the Streets and Collect the Garbage? 1860-1994" details how the immense amount of money involved sparked a struggle between municipal and private interests over who would perform the work, a debate still true today. Whoever was in charge, the streets usually remained filthy.

"Gone today, here tomorrow" aptly summarizes the dilemma addressed by "Garbage Disposal: Sea, Land, and Air 1860-1994." Garbage has proven almost impossible to dispose of with any finality. Ocean dumping, landfills, and incineration have each been tried and abandoned several times, due to environmental concerns, community opposition, increasing costs, or a combination of the three. Recycling, originally practiced by the ragpickers of the 19th century, shows renewed promise.

"Contemporary Issues: Pollution, Technology, and Social Commentary 1960s-1990s" centers on today's more lethal forms of trash including oil spills and nuclear wastes, the reemergence of environmental consciousness, new forms of advocacy, and the connection between waste production, environmental safety, and public health.



**Elizabeth Fee, PhD**

"A city's garbage involves many aspects of its social history, including public health, environmentalism, social reform, and urban pride."

-Dr. Elizabeth Fee

## HONORS

**Thomas Burke**, PhD, MPH, assistant professor, Environmental Health Sciences, has received a grant from the Environmental Protection Agency (EPA) to conduct a two-year study of environmental contamination and community health in South and southwest Philadelphia.

**Ruth Faden**, PhD, MPH, professor, Health Policy and Management, and director of the Program in Law, Ethics, and Health, will direct The Greenwall Fellowship Program in Bioethics and Health Policy. The program, jointly administered by the School and Georgetown University, will train a total of 16 distinguished scholars in bioethics and health policy.

**Bernard Guyer**, MD, MPH, chairman, Maternal and Child Health, has been appointed by Maryland Governor William Donald Schaefer as chairman of the State Commission on Infant Mortality Program. The commission is drafting a plan to address Maryland's infant mortality rate, tenth highest in the nation.

**Guohua Li**, MD, DrPH, research associate, Health Policy and Management, has received a National Institutes of Health "First" (First Independent Research Support and Transition) Award. Dr. Li was selected from over 100 applicants for the \$350,000, five-year award, geared toward young researchers.

**Noel Rose**, MD, PhD, professor, Molecular Microbiology and Immunology, has been inducted as an Honorary Member of the Austrian Society for Allergology and Immunology. Dr. Rose is only the fourth scientist so honored in the society's history.

## APPOINTMENTS AND PROMOTIONS

**Robert N. Frank**, MD, appointed professor emeritus, Environmental Health Sciences. Dr. Frank's pioneering research aided the development of the Clean Air Act and the banning of high-sulfur-content fuels without appropriate protective engineering measures.

**Brian S. Schwartz**, MD, promoted to associate professor, Environmental Health Sciences, Division of Occupational Health. Dr. Schwartz has focused his research efforts on biomarkers of Lyme disease in outdoor workers and neurobehavioral effects in workers exposed to lead or solvents.

**Ying Zhang**, PhD, appointed assistant professor, Molecular Microbiology and Immunology. Dr. Zhang will be working on bacterial pathogenesis with an emphasis on tuberculosis, a major new MMI area of research.

**Chunhua Zhou**, designated visiting scholar, Molecular Microbiology and Immunology. Ms. Zhou will collaborate with **Keerti Shah**, MD, DrPH, professor, MMI, on the NIAID program project "Protective Immunological Mechanisms Against Sexually Transmitted Diseases".

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## PUBLIC HEALTH NEWSLETTER

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## CALENDAR OF EVENTS

### TUESDAY, JANUARY 10

12:15-1:30 pm, Hampton House, Room 847. **MENTAL HYGIENE - "Substance Use and Abuse in Kenya."** Peter Njagi, M.Med., Psychiatry, consultant psychiatrist, Provincial Hospital, Embu, Kenya.

### THURSDAY, JANUARY 12

4-5:15 pm, Room 2030. **RESEARCH ETHICS - "International Research Issues."** Kenrad Nelson, MD, professor, Epidemiology; and Carl Taylor, MD, DrPH, professor emeritus, International Health.

### THURSDAY, JANUARY 19

4-5:15 pm, Room 2030. **RESEARCH ETHICS - "Animal Research Issues."** Katherine Acuff, JD, MPH, Ethics and Law Doctoral Program; and Thomas Kensler, PhD, professor, Environmental Health Sciences.

### THURSDAY, JANUARY 26

5pm, Room 2030, **DEAN'S LECTURE** Andrea Ruff, MD, associate professor, International Health - "HIV and Breastfeeding: Options in Settings of Scarcity."



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